

Course Type	Course Code	Name of the Course	L	T	P	Credits
DE	NMSD521	Supply Chain Management	3	0	0	3

Course Objective

To introduce students about the key fundamental aspects, performance metrics, and major decisions in supply chain.

Learning Out comes

Students will understand the key concepts and techniques related to supply chain processes. They can quantify supply chain performance and suggest recommendations to increase supply chain competitiveness.

Prerequisite: Operations Management and Operations Research

Unit No.	Topics to be Covered	Lecture Hours	Learning Outcome
1	Understanding the concept of supply chain and different process views; Supply chain performance, achieving strategic fit and scope. Supply chain driver and matrices. Case study	9	Will able to <ul style="list-style-type: none"> - understand the goal of a supply chain and explain the impact of supply chain decisions on the success of a firm. - understand how a company achieves strategic fit between its supply chain strategy and its competitive strategy.
2	Designing the supply chain network general concepts. Network design of supply chain using mathematical programming. Concept of aggregate production planning, Mathematical modeling of aggregate production planning. Case study	9	Will be able to <ul style="list-style-type: none"> - identify the key factors to be considered when designing a distribution network. - Understand the role of network design in a supply chain. - Understand the concepts of aggregate production planning
3	Managing economies of scale in Supply chain. Inventory models – EOQ, Lot sizing with multiple products, Quantity discounts models and uncertainty. Concept of centralization for holding inventory. Concept of service level. Case study	15	Will able to understand the issues related to EOQ, quantity discounts, centralization and decentralization and service level.
4	Design and planning of transportation network. Sourcing decision, Strategic alliances in supply chain, Use of information technology in supply chain. Concept of pricing. Recent developments in supply chain. Case study	9	Will able to understand different types of transportation networks and their importance, advantages of IT and pricing related issues.
	Total	42	

Text Books:

1. Supply Chain Management: Strategy, Planning, and Operation- Sunil Chopra, Peter Meindl, Pearson
2. Supply chain management: Text and Cases. Janat Shah, Pearson Education India.
3. Designing and managing the supply chain: concepts, strategies and case studies. David Simchi Levi, Philip Kaminsky, Edith Simchi Levi, & Ravi Shankar, McGraw-Hill Education.